In the Claims:

Please amend claims 1, 2, 6, 7, 10, 13, 24, 25, 27, 33-35, 39-43, 45, 49, 51, 52, 54, 57, 58, 62,-64, 67-69, and 82-86. In addition, please cancel claims 30-32, 38, 44, 48, 50, 75 and 76 and add new claims 87-98, all as shown below.

1. (Currently Amended): An intervertebral implant comprising:

a first part that is adapted to mate with a first vertebra;

a second part that is adapted to mate with a second vertebra; and

a third part that mates with the first part and the second part, with the third part having a first curved surface that mates with the first part and a second curved surface that mates with the second part and with the first curved surface directed oppositely to and provided ~~at an angle~~ substantially perpendicular to the second curved surface.

2. (Currently Amended): The implant of claim 1 wherein[[:]] the first part has a first socket that receives the first curved surface and the second part has a second socket that receives the second curved surface.

3. (Original): The implant of claim 1 wherein the first part has a first keel that is adapted to be inserted in a first vertebra and the second part has a second keel that is adapted to be inserted in a second vertebra.

4. (Original): The implant of claim 1 wherein the first curved surface allows the implant to move between anterior and posterior directions and the second curved surface allows the implant to move laterally.

5. (Original): The implant of claim 3 wherein the first and second keels are about parallel to a first axis of movement of one of the first part and the second part about the third part and the first and second keels are about perpendicular to a second axis of movement of the other of the first part and the second part about the third part.

6. (Currently Amended): The implant of claim 5 wherein[[:]] the first part has a first socket that receives the first curved surface and the second part has a second socket that receives the second curved surface.

7. (Currently Amended): An intervertebral implant comprising:

a first part that is adapted to mate with a first vertebra;

a second part that is adapted to mate with a second vertebra; and

a third part that mates with the first part and the second part with the third part [[having]] further comprising:

a first convex surface that mates with the first part configured to limit movement of the first part between a first and second direction; and

a second convex surface that mates with the second part configured to limit movement of the second part between a third and fourth direction, and with the first convex surface directed oppositely to and provided substantially perpendicular ~~at an angle~~ to the second convex surface.

8. (Original): The implant of claim 7 wherein:

the first part has a first socket that receives the first convex surface and the second part has a second socket that receives the second convex surface.

9. (Original): The implant of claim 7 wherein the first part has a first keel that is adapted to be inserted in a first vertebra and the second part has a second keel that is adapted to be inserted in a second vertebra.

10. (Currently Amended): The implant of claim 7 wherein the first and second directions are ~~convex surface allows the implant to move between~~ anterior and posterior directions and the third and fourth directions are lateral directions ~~second convex surface allows the implant to move laterally~~.

11. (Original): The implant of claim 9 wherein the first and second keels are about parallel to a first axis of movement of one of the first part and the second part about the third part and the first and second keels are about perpendicular to a second axis of movement of the other of the first part and the second part about the third part.

12. (Original): The implant of claim 11 wherein:

the first part has a first socket that receives the first convex surface and the second part has a second socket that receives the second convex surface.

13. (Currently Amended): An intervertebral implant comprising:

a first plate adapted to mate to a first vertebral body, the first plate including a first socket having a first interior surface wherein the first interior surface has a curved shape [[and a first wall and a second wall]];

a second plate adapted to mate to a second vertebral body, the second plate including a second socket opposed to the first socket, the second socket having a second interior surface, wherein the second interior surface has a curved shape oriented substantially perpendicular to the curved shaped of the first interior surface; and

a spacer with a first side that fits adjacent to the curved shape of the first interior surface of the first socket and a second side that fits adjacent to the curved shape of the second interior surface of the second socket.

14. (Original): The implant of claim 13 including at least one of the first and second plates including a keel extending therefrom and adapted to engage a vertebral body.

15. (Original): The implant of claim 13 including a first keel extending from the first plate and adapted to engage a first vertebral body, and a second keel extending from the second plate and adapted to engage a second vertebral body.

16. (Original): The implant of claim 13 wherein the first plate has a first side and a second side, wherein the first side faces the second plate and the second side contacts a surface of the first vertebral body.

17. (Original): The implant of claim 16 wherein the first side of the first plate and the second side of the first plate are parallel to each other.

18. (Original): The implant of claim 16 wherein the first side of the first plate and the second side of the first plate are not parallel to each other

19. (Original): The implant of claim 13 wherein the second plate has a first side and a second side and the first side of the second plate faces the first plate and the second side of the second plate contacts a surface of the second vertebral body.

20. (Original): The implant of claim 19 wherein the first side of the second plate and the second side of the second plate are parallel to each other.

21. (Original): The implant of claim 19 wherein the first side of the second plate and the second side of the second plate are not parallel to each other.

22. (Original): The implant of claim 13 wherein the first socket of the first plate has first and second side walls that are parallel to each other.

23. (Original): The implant of claim 13 wherein the second socket of the second plate has first and second side walls that are parallel to each other.

24. (Currently Amended): The implant of claim 13 wherein the first and second side walls of the first socket of the first plate are parallel to each other and the second socket of the second plate has first and second side walls that are parallel to each other and further wherein the first and second side walls of the first plate are substantially perpendicular to the first and second side walls of the second plate.

25. (Currently Amended): The implant of claim 13 wherein the implant is assembled so that the spacer is positioned ~~within~~ in the first socket of the first plate and the second socket of the second plate.

26. (Original): The implant of claim 13 wherein the first side of the spacer is curved and the second side of the spacer is curved.

27. (Currently Amended): The implant of claim 26 wherein the first curved side is oriented substantially perpendicular to ~~a curve of the~~ second curved side.

28. (Original): The implant of claim 13 wherein the first side of the spacer is convex and the second side of the spacer is convex.

29. (Original): The implant of claim 28 wherein the convex first side is oriented perpendicular to the convex second side.

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Currently Amended): The implant of claim [[32]] 87 including at least one of the first and second plates including a keel extending therefrom and adapted to engage a vertebral body.

34. (Currently Amended): The implant of claim [[32]] 87 including a first keel extending from the first plate and adapted to engage [[a]] the first vertebral body, and a second keel extending from the second plate and adapted to engage [[a]] the second vertebral body.

35. (Currently Amended): The implant of claim [[32]] 87 wherein the first plate has a first side and a second side, wherein the first side faces the second plate and the second side contacts a surface of the first vertebral body.

36. (Original): The implant of claim 35 wherein the first side of the first plate and the second side of the first plate are parallel to each other.

37. (Original): The implant of claim 35 wherein the first side of the first plate and the second side of the first plate are not parallel to each other.

38. (Cancelled)

39. (Currently Amended): The implant of claim [[32]] 87 wherein the first ~~socket~~ curved interior surface of the first plate has a first side wall and a second side ~~walls~~ wall, wherein the first and second side walls limit movement of the first plate in a desired direction with respect to the spacer.

40. (Currently Amended): The implant of claim [[38]] 39 wherein the first and second side walls of the first plate are parallel to each other ~~within the socket~~.

41. (Currently Amended): The implant of claim [[32]] 35 wherein the ~~socket~~ first curved interior surface of the first plate has first and second side walls that are substantially perpendicular to the ~~first surface~~ second side of the first plate.

42. (Currently Amended): The implant of claim [[32]] 40 wherein the ~~socket~~ second curved interior surface of the second plate has first and second side walls that are substantially perpendicular to the first ~~surface of the second plate~~ and second side walls of the first plate.

43. (Currently Amended): The implant of claim [[32]] 87 wherein the first ~~socket~~ curved interior surface of the first plate has first and second side walls that are parallel to each other and the first and second side walls of the second ~~socket~~ curved interior surface are parallel to each other and further wherein the first and second side walls of the first plate are substantially perpendicular to the first and second side walls of the second plate.

44. (Cancelled)

45. (Currently Amended): The implant of claim [[32]] 87 wherein the [[first]] second plate has a first side and a second side and the first side of the [[first]] second plate faces the ~~second~~ first plate and the second side of the [[first]] second plate contacts a surface of the second vertebral body.

46. (Original): The implant of claim 45 wherein the first side of the second plate and the second side of the second plate are parallel to each other.

47. (Original): The implant of claim 45 wherein the first side of the second plate and the second side of the second plate are not parallel to each other.

48. (Cancelled)

49. (Currently Amended): The implant of claim [[48]] 87 wherein ~~a curve of~~ the first ~~curved side~~ convex surface of the spacer is substantially perpendicular to the second convex surface of the spacer. ~~a curve of the second curved side~~.

50. (Cancelled)

51. (Currently Amended): The implant of claim [[50]] 87 wherein the first convex surface is oriented to lie substantially perpendicular to the second convex surface.

52. (Currently Amended): An intervertebral implant comprising:

a first plate adapted to mate to a first vertebral body;

a second plate adapted to mate to a second vertebral body; and

a spacer with a first convex side and a second convex side ~~and further~~ wherein the first convex side is substantially perpendicular to the second convex side, wherein first convex side limits movement of the first plate to flexion and extension and the second convex side limits movement of the second plate to lateral bending.

53. (Original): The implant of claim 52 including at least one of the first and second plates including a keel extending therefrom and adapted to engage a vertebral body.

54. (Currently Amended): The implant of claim 52 including a first keel extending from the first plate and adapted to engage [[a]] the first vertebral body, and a second keel extending from the second plate and adapted to engage [[a]] the second vertebral body.

55. (Original): The implant of claim 52 wherein the first plate has a first side and a second side, wherein the first side faces the second plate and the second side contacts a surface of the first vertebral body.

56. (Original): The implant of claim 52 wherein a socket of the first plate has first and second side walls that are parallel to each other.

57. (Currently Amended): The implant of claim [[52]] 55 wherein a first socket of the first plate has first and second side walls that are substantially perpendicular to [[a]] the first ~~surface~~ side of the ~~second~~ first plate.

58. (Currently Amended): The implant of claim 57 wherein [[a]] the first socket of the first plate has a curved third side between the first and second side walls.

59. (Original): The implant of claim 52 wherein the second plate has a first side and a second side, wherein the first side faces the first plate and the second side contacts a surface of the second vertebral body.

60. (Original): The implant of claim 59 wherein the first side of the second plate and the second side of the second plate are parallel to each other.

61. (Original): The implant of claim 59 wherein the first side of the second plate and the second side of the second plate are not parallel to each other.

62. (Currently Amended): The implant of claim [[59]] 52 wherein [[the]] a second socket of the second plate has first and second side walls that are parallel to each other.

63. (Currently Amended): The implant of claim 59 wherein a socket of the second plate has first and second side walls that are substantially perpendicular to the first ~~surface~~ side of the second plate.

64. (Currently Amended): An intervertebral implant comprising:

a first plate adapted to mate with a first vertebra;.

a second plate adapted to mate with a second vertebra;

a spacer ~~placed~~ between the first and the second plates along a plane;

the spacer non-symmetrical about the plane and having first and second curved surfaces that are at an angle to each other with the first curved surface mated with the first plate and the second curved surface mated with the second plate.

65. (Original): The implant of claim 64 wherein the curved surfaces are cylindrical.

66. (Original): The implant of claim 64 wherein the curved surfaces are convex.

67. (Currently Amended): The implant of claim 64 wherein the first and second plates each have a curved surface that mates with a respective curved surface of the spacer.

68. (Currently Amended): The implant of claim 65 wherein the first and second plates each have a cylindrical surface that mates with a respective cylindrical surface of the spacer.

69. (Currently Amended): The implant of claim 66 wherein the first and second plates each have a concave surface that mates with a respective convex surface of the spacer.

70. (Original): The implant of claim 64 wherein the first curved surface has a first axis and the second curved surface has a second axis, and the first axis and the second axis are at an angle to each other.

71. (Original): The implant of claim 64 wherein the first curved surface has a first axis and the second curved surface has a second axis, and the first axis and the second axis are at about perpendicular to each other.

72. (Original): An intervertebral implant comprising:

a first plate adapted to mate with a first vertebra;.

a second plate adapted to mate with a second vertebra;

a spacer placed between the first and the second plates; and

wherein said spacer in conjunction with the first plate allows rotational motion about a first axis and blocks motion about a second axis, and the spacer in conjunction with the second plate allows rotational motion about the second axis and blocks motion about the first axis.

73. (Original): The implant of claim 72 wherein said first axis is perpendicular to the second axis.

74. (Original): The implant of claim 72 wherein the implant can rotate about a third axis that is at an angle to the first axis and to the second axis.

75. (Cancelled)

76. (Cancelled)

77. (Original): The implant of claim 2 wherein at least one of the sockets has one or more crests.

78. (Original): The implant of claim 2 wherein at least one of the sockets has one or more crests to allow for twisting motion between the first part and the second part.

79. (Original): The implant of claim 8 wherein at least one of the sockets has one or more crests.

80. (Original): The implant of claim 8 wherein at least one of the sockets has one or more crests to allow for twisting motion between the first part and the second part.

81. (Original): The implant of claim 13 wherein at least one of the sockets has one or more crests.

82. (Currently Amended): The implant of claim 13 wherein at least one of the sockets has one or more crests to allow for twisting motion between the first [[part]] plate and the second [[part]] plate.

83. (Currently Amended):The implant of claim 1 wherein a material of the third part is selected from the group consisting of polyetheretherketone, polyetherketoneketone, polyaryletheretherketone, polyetherketone, polyetherketoneetherketone-ketone, and polyetheretherketoneketone.

84. (Currently Amended): The implant of claim 7 wherein a material of the third part is selected from the group consisting of polyetheretherketone, polyetherketoneketone, polyaryletheretherketone, polyetherketone, polyetherketoneetherketone-ketone, and polyetheretherketoneketone.

85. (Currently Amended): The implant of claim 13 wherein a material of the spacer is selected from the group consisting of polyetheretherketone, polyetherketoneketone, polyaryletheretherketone, polyetherketone, polyetherketoneetherketone-ketone, and polyetheretherketoneketone.

86. (Currently Amended): The implant of claim [[32]] 87 wherein a material of the spacer is selected from the group consisting of polyetheretherketone, polyetherketoneketone, polyaryletheretherketone, polyetherketone, polyetherketoneetherketone-ketone, and polyetheretherketoneketone.

New Claims

Please add the following new claims:

87. (New): An intervertebral implant comprising:

a first plate including a first curved interior surface extending between a first end and a second end of the first plate;

a second plate including a second curved interior surface extending between a third end and a fourth end of the second plate, wherein the third and fourth ends are oriented substantially perpendicular to the first and second ends; and

a spacer positioned between the first plate and the second plate substantially along a transverse plane, the spacer having a non-symmetrical configuration along the transverse plane, wherein the spacer includes a first convex surface in contact with the first curved interior surface and a second convex surface in contact with the second curved interior surface.

88. (New): The implant of claim 52 wherein the first plate is adapted to mate to an upper vertebral body.

89. (New): The implant of claim 88 wherein the second plate is adapted to mate to a lower vertebral body.

90. (New): The implant of claim 52 wherein the first plate is adapted to mate to a lower vertebral body.

91. (New): The implant of claim 90 wherein the second plate is adapted to mate to an upper vertebral body.

92. (New): An intervertebral implant comprising:

a first plate adapted to mate with a first vertebra, the first plate further comprising:

a first socket therein having a first concave surface;

a first wall adjacent to the first concave surface;

a second wall adjacent to the first concave surface;.

a second plate adapted to mate with a second vertebra, the second plate further comprising:

a second socket therein having a second concave surface, the second socket opposed to the first socket, wherein the second concave surface is oriented substantially perpendicular to the first concave surface;

a third wall adjacent to the second concave surface;

a fourth wall adjacent to second concave surface, wherein the third and fourth walls are substantially perpendicular to the first and second walls;

a spacer having a first convex surface to be received in the first socket and a second convex surface to be received in the second socket, wherein the first socket limits movement of the first plate between a first and second direction and the second socket limits movement of the second plate between a third and fourth direction.

93. (New): An intervertebral implant having an anterior side, a posterior side, a right lateral side and a left lateral side, the implant comprising: a spacer between a first plate and a second plate, the spacer having a first convex surface oriented between the anterior side and the posterior side and mated with the first plate, the spacer having a second convex surface opposed to the first convex surface and mated with the second plate, wherein the second convex surface is oriented between the right lateral side and the left lateral side.

94. (New) An intervertebral implant having an anterior side, a posterior side, a right lateral side and a left lateral side, the implant comprising: a spacer between a first plate and a second plate, the spacer having a first convex surface oriented such that the first plate is limited to rotating about a first axis intersecting the right and left lateral sides, the spacer further

having a second convex surface opposed to the first convex surface oriented such that the second plate is limited to rotating about a second axis intersecting the anterior and posterior sides.

95. (New): An intervertebral implant comprising:

a first part that is adapted to mate with a first vertebral body;

a second part that is adapted to mate with a second vertebral body; and

a third part that mates with the first part and the second part, with the third part having a first curved surface adapted to mate with the first part and provided about a first axis and a second curved surface adapted to mate with the second part and provided about a second axis, wherein the first axis and the second axis are oriented at an angle with respect to one another.

96. (New): The implant of claim 95 wherein the first curved surface allows the implant to move only substantially between anterior and posterior directions and the second curved surface allows the implant to move only substantially laterally.

97. (New): The implant of claim 95 wherein the first axis is substantially perpendicular to the second axis.

98. (New): An intervertebral implant comprising:

a first part that is adapted to mate with a first vertebra;

a second part that is adapted to mate with a second vertebra; and

a third part that mates with the first part and the second part with the third part further comprising:

a first surface that mates with the first part configured to limit movement of the first part between a posterior and anterior direction; and

a second convex surface that mates with the second part configured to limit movement of the second part between lateral directions.